AF/ 1772 IFW

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**
**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appl. No. : 09/853,160 Confirmation No.: 6913

Applicant : FUNAKOSHI, Satoru

Filed: : May 11, 2001

TC/A.U. : 1772

Examiner : P. Nordmeyer

Docket No. : 7372/71158

Customer No.: 22242

May 20, 2004

**TRANSMITTAL OF**
**APPEAL BRIEF**

Commissioner for Patents
U.S. Patent and Trademark Office
2011 South Clark Place
Customer Window, Mail Stop **Appeal Brief - Patents**
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Dear Sir:

In accordance with 37 C.F.R. § 1.192, Brief on Appeal in triplicate.

The items checked below are appropriate:

**1. Status of**

This application is on behalf of ■ other than a small entity or ☐ a small entity.

The verified statement ☐ is attached or ☐ was filed on .

**2. Fee For Filing Brief On Appeal**

Pursuant to 37 C.F.R. § 1.17(e), the fee for filing the Brief on Appeal is for:
■ other than a small entity or ☐ a small entity.

**Brief Fee Due: $330.00**

**3. Oral Hearing**

☐ an oral hearing in accordance with 37 C.F.R. § 1.194.

**4. Extension of Time**

The proceedings herein are for a patent application and the provisions of 37 C.F.R. § 1.136 apply.

☐ for a extension of time under 37 C.F.R. § 1.136, the fee for which is $.

■ that **no** extension of time is required. However, this conditional petition is being made to provide for the possibility that inadvertently overlooked the need for a petition and fee for extension of time.

**Extension fee due with this request: $0.00**

**5. Total Fee Due**

The total fee due is:

| | |
|---|---|
| Brief on Appeal Fee | $330.00 |
| Request for Oral Hearing | $ |
| Extension Fee (if any) | $ |

**Total Fee Due: $330.00**

**6. Fee Payment**

☐ Attached is a check in the sum of $ .

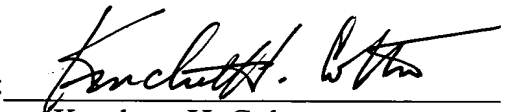
■ Charge Account No. 06-1135, under Order No. 7372/71158, the sum of $330.00. A duplicate of this transmittal is attached.

**7. Fee Deficiency**

■ If any additional fee is required in connection with this communication, charge Account No. 06-1135. A duplicate copy of this transmittal is attached.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

By: 
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May 20, 2004

**APPEAL BRIEF**

Commissioner for Patents
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2011 South Clark Place
Customer Window, Mail Stop **Appeal Brief-Patents**
Crystal Plaza Two, Lobby, Room 1B03
Arlington, VA 22202

Dear Sir:

Appellant respectfully submits an Appeal Brief pursuant to 37 C.F.R. §1.192.

**(1) Real Party In Interest**

The real party in interest is Sumitomo Chemical Co., Ltd.

**(2) Related Appeals and Interferences**

There are no pending appeals or interferences known to Appellant, Appellant's legal representative or the assignee that would directly affect or be indirectly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

Claims 1 and 2 are elected claims and are presented in this appeal. Non-elected claims 3-8 are pending but stand withdrawn from consideration.

**(4) Status of Amendments**

Appellant's Amendment of March 24, 2004 was not entered. see April 26, 2004 Advisory Action. The claims on appeal were not amended so the refusal to enter the paper filed March 24, 2004 appears to be inadvertent.

**(5) Summary of the Invention**

There has heretofore been a strong demand for reducing the weight of automotive interior parts and the application of foamed moldings are known as a measure for such weight reduction. For example, JP-A-11-179752 discloses automotive interior parts comprising a foamed polyolefin-based resin molding constituted of a skin layer and a foamed layer. Specification, page 1.

However, there is a problem, with a speaker grille portion constituted of a mesh or lattice form, that if even the thin frame portion forming the speaker grille is formed of a foamed material having an expansion ratio comparable to or greater than that of the foamed layer in the base portion, the speaker grille portion is easily broken. Specification, page 1.

The Appellant discovered that a speaker grille-integrated with foamed thermoplastic resin molding for automotive interior that has excellent strength even in its speaker grille portion without impairing the original object of the invention, weight reduction. Specification, pages 1-2.

Accordingly, for purposes of this appeal, the present invention provides a speaker grille-integrated foamed thermoplastic resin molding for automotive interior comprising a base portion and a speaker grille wherein at least the base portion has a foamed layer of a density $\rho$ of not greater then 0.7 g/cm$^3$ and an average expansion ratio of the speaker grille is 1 to 1.3 times. Specification, page 2.

In the present invention, a lightweight can be achieved by forming a foamed layer of a low density of up to about 0.6 g/cm$^3$ and, at the same time, an excellent strength of a speaker grille can be secured by making the speaker grille have an expansion ratio (1-1.3 times). Specification, page 5, lines 4-5 and page 6.

Appellant presents as an embodiment a speaker grille-integrated foamed thermoplastic resin molding for automotive interior. This embodiment is disclosed as comprising a base portion and a speaker grilled having a plurality of opening holes wherein at least the base portion has a foamed layer and the foamed layer in the base portion has a density $\rho$ of not greater than 0.6 g/cm$^3$ and an average expansion ratio of the speaker grille is 1 to 1.3 times, wherein the speaker grille is formed in one piece with the base portion from the same material as the base portion so as to be surrounded by the base portion. Specification throughout, including page 5, lines 4-5 and pag 6, line 4 and the original claim 1.

In another embodiment, in the speaker-grille-integrated foamed thermoplastic resin molding for automotive interior, the thermoplastic resin is a thermoplastic resin that contains at least about 70% by weight of polypropylene-based resin. Specification, page 10.

**(6) Issues on Appeal**

The issue broadly framed is whether each of claims 1 and 2 defines an unobvious invention under 35 U.S.C. §103(a) over the Goto reference (U.S. Patent No.6,342,176) in combination with the Sato reference (U.S. Patent No. 5,793,002)?

The issues as thus broadly posed includes additional "Graham" inquiries as:

i. Whether there is no *prima facie* case of obviousness because references would not have been combined because there is no demonstrated motivation to do so?

ii. Whether there is no *prima facie* case of obviousness because primary reference to Goto et al. apparently does not literally disclose what is asserted in the Office Action?

**(7) Grouping of Claims**

Claims 1 and 2 are on appeal and stand or fall together unless separately argued herein.

**(8) Argument**

Appellant respectfully submits that claims 1 and 2 severally define unobvious inventions under 35 U.S.C. § 103(a) and that the rejection should be reversed.

Appellant respectfully submits that (a) the Goto et al. reference does not disclose nor would it have suggested the features asserted in the Office Action; (b) the Sato et al. reference does not disclose nor would it have suggested the features asserted in the Office Action; (c) the Goto et al. and Sato et al. references would not have been combined; and (d) even if the references would have been combined, which is not conceded, they still would not have suggested the present claimed inventions to a person of only ordinary skill in the art.

**1. Legal Principles**

The Examiner "bears the initial burden, on review of the prior art . . ., of presenting a *prima facie* case of unpatentability." In re Oetiker, 977 F.2d 1443, 1445 (Fed. Cir. 1992). A rejection cannot be predicated on the mere identification of individual components of claimed limitations. There must be evidence that "a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998); see also In re

Werner Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000). "[I]t is incumbent upon the examiner to identify some suggestion to combine the references or make the modification." Ex parte Askman, Appeal No. 96-1548 (June 10, 1999) at page 5, quoting In re Mayne, 104 F.3d 1339, 1342 (Fed. Cir. 1997). The factual basis for an alleged suggestion "cannot 'be resolved on subjective belief and unknown authority.'" Ex parte Metcalf, 67 USPQ2d at 1635, quoting In re Lee, 277 F.3d 1338, 1343-44 (Fed. Cir. 2002).

An alleged prior art reference that has no teaching of a claimed element of the invention would not have suggested Appellant's claimed inventions to a person of only ordinary skill in the art. Ex parte Browne, 19 USPQ2d 1609, 1612 (BOPI 1990) ("since the prior art is silent as to this feature, we are unable to sustain the rejection which we originally precipitated."). When an alleged prior art patent, including drawings, is silent on a quantitative relationship, rejections assuming the existence of any such quantitative relationship are undermined, and subject to being reversed. *See, e.g.*,Hockerson-Halberstadt Inc, v. Avia Group International Inc., 58 USPQ2d (BNA) 1487, 1491 (Fed. Cir. 2000); Ex parte Brown, 19 USPQ2d (BNA) 1609, 1612 (BOPI 1990) ("since the prior art is silent as to this feature, we are unable to sustain the rejection ..."); Ex parte Isaksen 23 USPQ2d (BNA) 1001, 1006 (BOPI 2001), "Forbes patent are completely silent as to any sharpening effect and do not describe with any specificity what results to magnetic treatment had on the razor blade edge," rejection reversed). This follows from the In re Antonie, 195 USPQ 6, 8 (CCPA 1977) decision where the court said "The PTO and the minority appear to argue that it would always be *obvious* for one of ordinary skill in the art *to try* varying *every* parameter of a system in order to optimize the effectiveness of the system even if there is no evidence in the record that the prior art recognized that particular parameter affected the result. As we have said many times, *obvious to try* is not the standard of 35 USC 103. In re Tomlinson, 53 CCPA 1421, 363 F.2d 928, 150 USPQ 623 (1966). Disregard for the unobviousness of the results of "obvious to try" experiments disregards the "invention as a whole" concept of §103, In re Dien, 54 CCPA 1027, 371

F.2d 886, 152 USPQ 550 (1967) and In re Wiggins, 55 CCPA 1356, 397 F.2d 356, 158 USPQ 199 (1968), and overemphasis on the routine nature of the data gathering required to arrive at appellant's discovery, after its existence became expected, overlooks the last sentence of §103. In re Saether, 492 F.2d 849, 181 USPQ 36 (CCPA 1974)."

The problem addressed by the present method and the manner of its being addressed are neither disclosed nor would they have been suggested to a person of ordinary skill in the art by the cited reference(s). "A prima facie case of obviousness can be rebutted if the applicant ... can show `that the art in any material respect taught away' from the claimed invention." In re Geisler, 116 F.3d 1465, 1469 (Fed. Cir. 1997) (quoting In re Malagri, 499 F.2d 1297, 1303 (CCPA 1974)). A reference teaches away when a person of ordinary skill, upon reading the reference, would have been led in a direction divergent from the path that was taken by Appellant.

**2. The Goto reference appears to have been mistakenly construed and appears neither to disclose nor teach what is said in the Office Action.**

*Arguendo*, it appears that the Office Action relies on Goto et al. as follows:

(1) Goto et al. discloses a door trim panel (Figure 7) containing a speaker grille with a plurality of holes (Figure 7, #452);

(2) As can be seen in Figures 7 and 8, the resin molding contains a base portion (Figure 8, #30) in which the speaker grille is formed and surrounded by the base portion (Figure 7, #452 and 30); and

(3) The base portion is formed by polypropylene foam (column 6, lines 28-32 and lines 36-38).

The Examiner has opined that the only difference between the claimed product and the door trim panel is that in the claimed product the foamed layer in the base portion

having a density of not greater than 0.6 g/cm$^3$ and an average expansion ratio of the speaker grille is 1 to 1.3 times.

Appellant respectfully suggests that the Examiner erred in the interpretion of the Goto et al. reference.

For instance, Goto et al. does not teach a base portion having a foamed layer.

As to item (3) in the analysis of Goto et al., the Examiner apparently has the view, based on the description in column 6, lines 28-32 and lines 36-38, that the door trim panel of Goto et al. has a base portion which is formed by a polypropylene foam. However, the description of column 6, lines 28-32, is an explanation about a skin material employed. Goto et al. discloses that the skin material has an inner layer 202 made from polypropylene resin.

Figure 6 shows what appears to be the skin according to the Goto et al. reference. It does not depict the base and the skin is described separately from the synthetic resin 30.

Figures 7 and 8 are described as follows in the Goto et al. reference at column 6 at lines 49-63. As evident from Figures 7 and 8, the Goto et al. reference differentiates the skin from the base that is formed from the injected synthetic resin:

> Embodiment 3
>
> Embodiment 3 is an example of an application of the first aspect of the invention to a door trim of an automobile as shown in FIGS. 7 and 8.
>
> The door trim has a resin part 30 formed entirely from a synthetic resin with a skin 20, as shown in the [sic] both figures. In these figures, an arm rest 451, a speaker box 452 and a pocket 453 are also shown.
>
> As the skin 20, a fabric backed with a polypropylene

sheet on its back surface is used. Polypropylene is used as the synthetic resin.

Plural first gates 115 and 116, and plural second gates 125 and 126 are employed.

The production of the instrument panel of Embodiment 3 is performed by the same method as described in Embodiment 1.

From Figures 7 and 8 it is seen that the grille depicted via speaker box 452 is located in the portion of the door trim labeled 30. For the convenience of the Board, Figures 7 and 8 are reproduced below:

***Fig. 7***

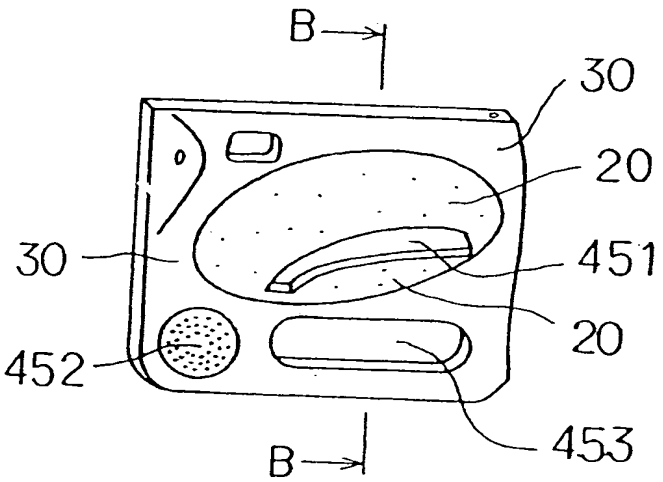
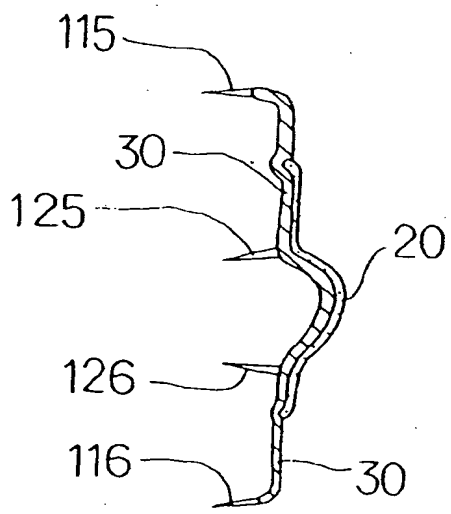



***Fig. 8***



The door trim section labeled 30 is "a resin part formed entirely from a synthetic resin" – as distinguished, from "a skin 20." Door trim 30 is not the skin 20.

Therefore, when the prior passages at column 6, lines 28-32 are fairly considered, they relate to skin 20, not the resin part 30 "formed entirely from a synthetic resin."

Goto et al. does not disclose what is alleged in the Office Action. It does not disclose and does not suggest "a speaker grille ... formed in one piece with the base portion from the same material as the base portion so as to be surrounded by the base portion" and does not disclose and does not suggest "the base portion has a foamed layer and the foamed layer in the base portion has a density $\rho$ of not greater than 0.6 g/cm$^3$ and an average expansion ratio of the speaker grille is 1 to 1.3 times."

**3. The Sato et al. reference seems misapplied.**

Appellant respectfully suggests the interpretation of the Sato reference in the Office Actions herein appears mistaken.

Appellant has submitted that a loudspeaker vibrating diaphragm disclosed by the Sato et al. reference is not a speaker grille.

According to the Office Action dated on April Fool's Day 2001, the "Sato et al. [reference] discloses that it is known in the art to provide a foam layer in a speaker, where the foam is polypropylene having a density between 0.32 to 0.93 g/cm$^3$ with expansion ratios from 1 to 2.90 (Figure 10)."

The passage relates to a vibrating diaphragm and *not* a speaker grille.

According to the Advisory Action, "Sato et al. is cited... not to show the presence of a speaker grille." Advisory Action, page 2.

So, it follows that a skin layer in Sato et al. reference neither describes nor would it have suggested a speaker grille.

The Sato et al. reference would not have taught the following features of the claim 1 invention: (1) the presence of a speaker grille, (2) a speaker grille integrated with a base portion, and (2) an average expansion ratio of the speaker grille of 1 to 1.3 times.

The Sato et al. reference would not have taught the features of dependent claim 2, namely the reference does not disclose and would not have suggested a speaker-grille-integrated foamed thermoplastic resin molding for automotive interior according to claim 1, wherein the thermoplastic resin is a thermoplastic resin containing at least about 70% by weight of polypropylene-based resin.

**4. The Goto et al. and Sato et al. references would not have been combined - there appears to be no motivation.**

Merely because separate elements are allegedly separately mentioned in prior art, even if the Examiner's thesis is correct, which it is not, there remains an unanswered question. Where is the motivation to modify the Goto et al. reference to teach what it doesn't disclose and combine the non-existent teaching with the Sato et al. reference? Such evidence is not seen in this record.

*Arguendo*, if Sato et al. were to be applied, it would seem directed to a part not shown in Goto et al. It would appear to be directed to what might be separately manufactured and mounted within the Goto et al. speaker box. That would not have motivated a person of ordinary skill in the art to the speaker grille itself, nor motivated the

ordinary artisan to modify the Goto et al. reference to change the resin part 30 and/or the speaker grilled to form a structure not disclosed or suggested in either reference.

Appellant respectfully submits the diaphram product in the Sato et al. reference differs from a speaker grille, and also differs in approach and function from the resin part 30 in the door trim according to the Goto et al. reference, whereby the references would not have been combined by a person of ordinary skill in the art at the time Appellant made the claimed inventions.

**5. Even if combined, the references would not have taught the claimed inventions to a person of ordinary skill.**

Appellant respectfully submits, *arguendo*, that even if the Goto et al. and Sato reference were combined, their combined teachings would not have suggested the inventions of claim 1 and claim 2 to a person of only ordinary skill in the art.

The reference to Goto et al. would not have suggested the speaker grille in a foamed base wherein "the speaker grille is formed in one piece with the base portion from the same material as the base portion so as to be surrounded by the base portion."

The Sato et al. reference would not have taught the following features of the claim 1 invention: (1) the presence of a speaker grille, (2) the presence of a speaker grille integrated with a base portion, and (3) an average expansion ratio of the speaker grille of 1 to 1.3 times. It would not have suggested the features of claim 2 in combination with the features of claim 1.

In short, Appellant respectfully submits that the references, even if combined - a point not conceded - would not have taught the claimed product in which the foamed

layer in the base portion has a density of not greater than 0.6 g/cm$^3$ and an average expansion ratio of the speaker grille is 1 to 1.3 times.

**(9) Conclusion**

Appellant respectfully submits that there is no prima facie case of obviousness and respectfully requests the Board to reverse the rejection of claims 1 and 2.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

By: _____

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## APPENDIX

Appellant submits this Appendix to present all claims pending in this Application. It is respectfully noted for the record that *only* claims 1 and 2 are involved on the merits of the appeal as claims 3-8 stand withdrawn from consideration and have not yet been considered on the merits.

**Elected claims involved in the Appeal:**

Claim 1 (previously presented): A speaker grille-integrated foamed thermoplastic resin molding for automotive interior comprising a base portion and a speaker grille having a plurality of opening holes wherein at least the base portion has a foamed layer and the foamed layer in the base portion has a density $\rho$ of not greater than 0.6 g/cm$^3$ and an average expansion ratio of the speaker grille is 1 to 1.3 times, wherein the speaker grille is formed in one piece with the base portion from the same material as the base portion so as to be surrounded by the base portion.

Claim 2 (original): The speaker-grille-integrated foamed thermoplastic resin molding for automotive interior according to claim 1, wherein the thermoplastic resin is a thermoplastic resin containing at least about 70% by weight of polypropylene-based resin.

**Non-elected Claims Withdrawn from Consideration:**

Claim 3 (original): A method for producing a speaker-grille-integrated foamed thermoplastic resin molding for automotive interior, the method using a mold, which can be opened and closed, comprising a pair of a female and male mold members, the mold having an opening hole-forming pin for forming an opening hole of the speaker grille and a slide core that can be moved forward and backward in the mold opening-and-closing

direction, the mold having a structure capable of causing the female and male mold members to form a partial contact state by means of the opening hole-forming pin and the slide core and capable of freely controlling a mold cavity clearance defined by the female and male mold members while causing the slide core to move so as to maintain the contact state, wherein the process comprises the steps of:

(a) charging a molten thermoplastic resin containing a foaming component into a mold cavity defined by the female and male mold members while causing the female and male mold members to form the partial contact state by means of the opening hole-forming pin and the slide core;

(b) forming a solidified layer in a surface of the molten thermoplastic resin charged in the mold cavity;

(c) opening, after the formation of the solidified layer, the mold in the molding thickness direction so that the mold cavity clearance becomes the thickness of a final molding while moving the slide core so as to maintain the contact state, thereby foaming an unsolidified portion of the molten thermoplastic resin charged; and

(d) cooling a molding while maintaining the mold cavity clearance at the thickness of the final molding.

Claim 4 (previously presented): The method according to claim 3 characterized by use of a mold comprising female and male mold members wherein the parting surface of the female and male mold members, which is formed in the contact state partially formed by the female and male members by means of the opening hole-forming pin and the slide core, is defined by the tip of an opening hole-forming pin installed in one mold member and a slide core installed in another mold member.

Claim 5 (previously presented): The method according to claim 3 characterized by use of a mold comprising female and male mold members wherein the parting surface of the female and male mold members, which is formed in the contact state partially

formed by the female and male mold members by means of the opening hole-forming pin and the slide core, is defined by the tip of an opening hole-forming pin installed in the slide core installed in one mold member and a slide core installed in another mold member.

Claim 6 (previously presented): The method according to claim 3 characterized by use of a mold comprising female and male mold members wherein the parting surface of the female and male mold members, which is formed in the contact state partially formed by the female and male mold members by means of the opening hole-forming pin and the slide core, is defined by the tip of an opening hole-forming pin installed in one mold member and the mold cavity surface of another mold member.

Claim 7 (previously presented): The method according to claim 3 characterized by use of a mold comprising female and male mold members wherein the parting surface of the female and male mold members, which is formed in the contact state partially formed by the female and male mold members by means of the opening hole-forming pin and the slide core, is defined by the tip of an opening hole-forming pin installed in one mold member and the tip of an opening hole-forming pin installed in the slide core installed in another mold member.

Claim 8 (previously presented): The method according to claim 3 characterized by use of a mold comprising female and male mold members wherein the parting surface of the female and male mold members, which is formed in the contact state partially formed by the female and male mold members by means of the opening hole-forming pin and the slide core, is defined by the tip of an opening hole-forming pin installed in the slide core installed in one mold member and the tip of an opening hole-forming pin installed in the slide core installed in another mold member.